

WHAT IS CLAIMED IS:

1. A glass bulb for a cathode ray tube which comprises a panel portion with a face portion of substantially rectangular shape and a skirt portion forming a side wall for the face portion, a funnel portion and a neck portion, wherein a compressive stress is formed <sup>in</sup> at at least an outer surface of the panel portion by physically strengthening; there is a relation of  $1.0 \leq t_R/t_F \leq 1.4$  between the maximum wall thickness  $t_F$  of the face portion on at least one axis of a long axis and a short axis which pass through the center of the face portion and which cross at a right angle, and the maximum wall thickness  $t_R$  of a blend R portion for connecting the skirt portion; and a formula of  $7\text{MPa} \leq |\sigma_c| \leq 30\text{MPa}$  is satisfied where  $\sigma_c$  is a compressive stress value by physically strengthening in at least an area including a position at which the maximum tensile vacuum stress  $\sigma_{V\text{max}}$  is formed after the assembling of the cathode ray tube.
2. A glass bulb for a cathode ray tube according to Claim 1, wherein there is a relation of  $t_R \leq R_b$  between the maximum wall thickness  $t_R$  of the blend R portion and the radius of curvature  $R_b$  of the blend R portion in general.
3. A cathode ray tube which has the panel portion as defined in Claim 1.
4. A glass bulb for a cathode ray tube according to Claim 1, wherein there is a relation of  $1.0 \leq t_R/t_F \leq 1.3$

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- between the maximum wall thickness  $t_F$  of the face portion on at least one axis of a long axis and a short axis which pass through the center of the face portion and which cross at a right angle, and the maximum wall
- 5 thickness  $t_R$  of a blend R portion for connecting the skirt portion; and a formula of  $7\text{MPa} \leq |\sigma_c| \leq 30\text{MPa}$  is satisfied where  $\sigma_c$  is a compressive stress value by physically strengthening in at least an area including a position at which the maximum tensile vacuum stress  $\sigma_{V\max}$
- 10 is formed after the assembling of the cathode ray tube.
5. A glass bulb for a cathode ray tube according to Claim 4, wherein there is a relation of  $t_R \leq R_b$  between the maximum wall thickness  $t_R$  of the blend R portion and the radius of curvature  $R_b$  of the blend R portion in
- 15 general.
6. A cathode ray tube which has the panel portion as defined in Claim 4.

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